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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/533,251	04/29/2005	Jan Peter Sternby	05049.0002	7073

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EXAMINER

DEAK, LESLIE R

ART UNIT	PAPER NUMBER
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3761

MAIL DATE	DELIVERY MODE
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06/22/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/533,251

Applicant(s)

STERNBY, JAN PETER

Examiner

Leslie R. Deak

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 August 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 7/28/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 11 and 13 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims are directed to computer programs, and not an actual encoded apparatus with the claimed program. The claimed programs, without a device upon which the program is transcribed, are incapable of producing a tangible result.

2. Claim 17 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 17 is rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant(s) regard as their invention.

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5. Claim 17 provides for the use of a device capable of performing certain calculations, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5,662,806 to Keshaviah et al.

In the specification and figures, Keshaviah discloses the method as claimed by applicant. With regard to claims 1-4, Keshaviah discloses a that the prior art uses a method of determining dialyzer clearance comprising the steps of measuring a blood urea concentration at the end of treatment (which is interpreted by the examiner to be within the “approximately” one minute time frame), as well as once a month outside of treatment, which is interpreted by the examiner to encompass applicant’s claimed “no earlier than...one half hour after the end of treatment” (see column 10, lines 54-65). The method then uses a ratio between these measurements (thereby dividing the values as

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claimed by applicant) to derive a clearance ratio that represents the effect on the patient of the dialysis cleaning capacity, meeting the limitations of the claims.

8. Claims are rejected under 35 U.S.C. 102(b) as being anticipated by WO 98/55166 to Sternby.

In the specification and figures, Sternby discloses the method as claimed by applicant. With regard to claims 1-4, Sternby discloses a that the prior art uses a method of determining dialyzer clearance comprising the steps of measuring a blood urea concentration immediately at the end of treatment (which is interpreted by the examiner to be within the "approximately" one minute time frame), as well as 30-60 minutes after treatment, which is interpreted by the examiner to encompass applicant's claimed "no earlier than...one half hour after the end of treatment" (see p 10).

With regard to claim 5, Sternby discloses the steps of taking a urea measurement at time zero, taking several other urea measurements after a 60 minute waiting period, deriving a starting urea concentration m_0 based on the measured values, and then dividing starting urea concentration m_0 by the measured blood concentration C_b (see p 17-19).

With regard to claims 6-8, Sternby discloses the steps of using a removal rate slope to determine whole body clearance or total urea removal (see p19, paragraphs 2-4). Sternby further discloses the use of the slope of K/V to determine parameters relating to treatment efficiency, or whole body clearance (see p 16).

With regard to claims 9-10 and 16, Sternby discloses that these operations may be carried out on a standard hemodialysis system that is capable of measuring urea

concentration on the blood side (Cb) or the dialysate side (Cd) of the device (see p 6-9) and is capable of estimating a whole body clearance ratio as claimed by applicant.

With regard to claims 12 and 14, Sternby discloses that the dialysis apparatus and urea monitor are controlled by computer 17. Since computer 17 operates the in the method claimed by applicant, the computer necessarily comprises the method claimed by applicant encoded on a computer readable medium so that the computer can execute the commands of the disclosed method. Therefore, the Sternby disclosure meets the limitations of the claims.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO 98/55166 to Sternby in view of US 6,284,141 to Shaldon.

In the specification and figures, Sternby discloses the method substantially as claimed by applicant, including the steps of performing dialysis under a first set of conditions and analyzing that set of conditions to determine a particular result, which is affected by the operating parameters of the dialysis procedure. Sternby does not specifically disclose the step of performing dialysis again under a second set of conditions. However, Shaldon discloses a method of performing a blood treatment

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procedure under a first set of efficiency conditions and calculating efficiency while performing the operation. Once the first operation is finished, the method comprises the steps of performing the blood treatment procedure under a second set of conditions if necessary. This allows for two sessions of varying intensity to increase patient comfort (see Shaldon columns 1-4). Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to use the calculations and method disclosed by Sternby to create and perform two discrete treatment sessions as disclosed by Shaldon in order to provide sessions of differing efficiency, increasing patient comfort, as taught by Shaldon.

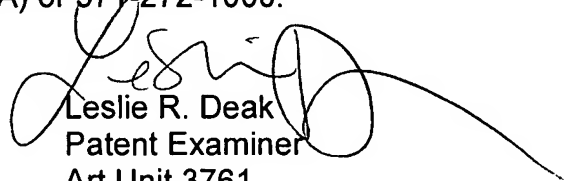
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leslie R. Deak whose telephone number is 571-272-4943. The examiner can normally be reached on M-F 7:30-5:00, every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tanya Zalukaeva can be reached on 571-272-1115. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Leslie R. Deak
Patent Examiner
Art Unit 3761
18 June 2007